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THE MONEY-MAKING TIMBER
TREE OF THE FUTURE

FEB 25 1920
U. S. Dep

WAGNER'S GIANT BLACK WALNUT

Better than Eucalyptus for rapidity of growth and value of timber

"He who plants a tree, not only plants a hope but a competence for old age."

J. B. WAGNER
PLANT SPECIALIST
PASADENA - - CALIFORNIA

"SHOW ME"

A Missouri farmer "skinned" a stranger by selling him a walnut tree in the pasture for $25.00.

The stranger sold it for $600.00.

You can do equally as well in California.

This is no dream.

The following pages tell you how.

WAGNER'S
Giant Black Walnut

THE TREE FOR BEAUTY AND FOR TIMBER PROFIT

The New Black Walnut Timber Tree.

[From the Rural Californian, November, 1909.]

J. B. Wagner, the expert horticulturist of Pasadena, is introducing a walnut timber tree, which is a cross between the Santa Barbara Soft Shell and the Black Walnut, for which claims are made of rapid growth and also a nut of commercial value. The rapidity of growth is one of its most striking characteristics. Mr. Wagner reports that a single tree grown in his nursery, six years from planting, measured over two feet in diameter at the base. A representative of the Department of Agriculture in viewing it for the first time, said it was one of the most extraordinary growths that had ever come under his observation and suggested its planting for timber culture. Acting on this suggestion, Mr. Wagner has secured twenty acres of land in the Imperial Valley, which he will plant to this hybrid. Beyond its commercial value as a timber producer in its third year it also bears a very good quality of nut, the quantity increasing each year until the sixth or seventh when a full crop may be expected. The nuts resemble the English hard shell, possessing a sweet kernel, and though not as desirable as thes oft shells, nevertheless possess a value for culinary purposes.

It is claimed for this hybrid that it will come true to seed, which is certainly a factor decidedly in its favor. Mr. Wagner reports that the nuts are of uniform size and character and that seedlings will come true to the parent. Allowing for the fact that the walnut possesses a much wider distribution than the eucalyptus, it has better value. This, coupled with its rapidity for growth, makes it unusually attractive to lumbermen, as the production of merchantable trees in a very limited space of time is made possible. Practical tests have demonstrated that its lumber is of the desirable quality of the best black walnut, being tough,

close grained, of fine texture, and very susceptible to a brilliant polish.

It is also to be commended as a roadside or shade tree. Its rapid growth and spreading branches make it particularly desirable in this respect, especially in Southern California, where we like the shade in summer and the sunshine in winter. It greatly resembles the common walnut. It will do well in any alluvium soil, needs little care when once established, but should be given plenty of room. Forty to fifty feet apart when planted for ornamental or shade purposes is not too much, though for timber culture, Mr. Wagner is of the opinion they should be planted much closer in order to secure a taller and straighter saw log.

A New and Valuable Timber Tree.

By the Editor.

[From Town and Country Journal, Jan. 15, 1909.]

The growing scarcity of the timber supply of the country is causing much apprehension, and we are casting about for some rapid growing hardwood tree which will take the place of the timber of which we have been so wasteful. It is for this reason that the eucalyptus have come so rapidly into favor, and thousands of acres of these are now being planted in California in the hope that they will fill the gap in our lumber supply. But the eucalyptus are adapted only to a comparatively small area in the United States, principally California.

Now, however, we have another candidate for popular favor in a most remarkable walnut tree originated by J. B. Wagner of Pasadena. Mr. Wagner, with the infinite patience characteristic of him, has been working to improve our native black walnut and has at last succeeded in producing a cross between it and the Santa Barbara soft shell, that is a wonder and promises to excel the eucalyptus as a rapid-growing hard-timber tree while, at the same time, yielding fruit which, if not quite up to the quality of its Santa Barbara parent, is at least edible and excellent for confectionery and culinary purposes.

The most wonderful thing about this remarkable cross is the extraordinary rapidity with which it grows. Mr. Wagner has one of the trees growing in his nursery that, at six years from planting, measured over two feet in diameter at the base, and a representative of the Department of Agriculture, in commenting on it, said that it was the most extraordinary growth which had ever come

under his observation and advised its planting for lumber and wood pulp, stating that there were fortunes in it. Mr. Wagner, in conformity with this advice, has secured twenty acres of land in the Imperial Valley, which he will set out with this one variety of tree. This is the most rapid growing hardwood tree on earth and will, in all probability, yet supply the walnut lumber of the future.

The tree bears early and some nuts were gathered the third year, while at six years there was a full crop. The nuts resemble the English hard shell, are very sweet and while, as stated above, they are not a first-class dessert nut, they are excellent for confectionery, and, being a very heavy cropper, the tree makes up in quantity what it may lack in quality.

Another beauty of it is that it comes true to seed. When their superior qualities become thoroughly known, they will be more popular as timber trees than are the eucalyptus.

Mr. Wagner's estimate of the value of this tree is that of a man of experience, a propagator, an originator and a scientist, and is based on scientific knowledge, backed by years of actual experience along these lines, aided by the United States Government and all obtainable works and information.

That there will be a demand for these trees is certain, when we realize that the once common black walnut of the East has been practically exterminated, and old stumps, fence rails and other articles which it was used for in the days of its abundance, are being purchased at high prices and worked up into thin veneering to cover cheaper woods. Black walnut lumber is today the most costly of our American woods. It is practically impossible to renew the Eastern walnut forests, as the trees are of such slow growth that they could not possibly be of any profit to the planters, and we are not given to planting forest trees for future generations. With this remarkable tree, which Mr. Wagner has originated, there is every possibility that an abundant supply of walnut wood for all purposes may be produced and the planter will not have to wait a lifetime for returns from his investment, as he may reasonably expect to have merchantable timber in ten years from planting, and it will increase in size and value every year after that time, if left.

It is superior to the eucalyptus as a timber tree from the fact that it has a much wider range. Being hardy, it can be grown under conditions that would make it impossible to grow any of the eucalyptus.

Making so rapid a growth, lumbermen have expressed a doubt as to its quality and fitness for lumber, but practical tests have demonstrated that it has all the desirable qualities of the best black walnut in hardness, closeness of grain, fineness of

texture, and taking a fine polish. In fact, there is no desirable quality of the best black walnut which is not found in this, and in many respects it is even superior to that wood.

It will take a graft or bud quite readily, and grows as rapidly on other than its own stock as it does on its own. At six years of age these trees are as large as black walnut trees at fifty, or Persian walnuts at thirty years of age.

The superior qualities of this remarkable new walnut are not confined to its use as a timber or nut tree. As a shade tree it is unequaled. Growing so rapidly, it becomes a large tree long before other shade trees have got fairly started. It has a large overhanging top, large leaves, glossy foliage and is very dense. It is to be recommended for shade, as it is dense in the summer months and, being deciduous, allows the sun to shine through it during the damp weather of winter, when the sun is as desirable as is shade in sumemr.

Wagner's Giant, for so this tree has been named, is without doubt one of the coming timber trees of California, and, so soon as its remarkable qualities become fully known, of the whole United States, for, unlike the eucalyptus, it can be grown over the greater part of the Union, and inasmuch as good saw logs can be cut from it in from eight to fifteen years, and these of the highest priced lumber in America, there will be fortunes in its growth for those who get into the field early in the day.

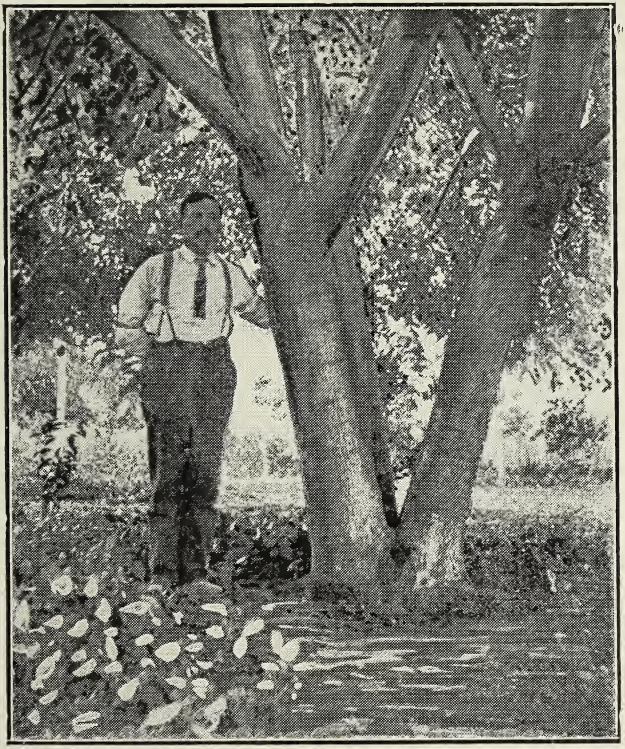
In the matter of cultivation it resembles the common walnut. It will do well in any alluvium, needs little care when once started, and being a very rapid grower, should be given plenty of room, not so much as for a nut tree, but more than the amount usually allowed for a timber tree.

J. B. Wagner's Experimental Grounds.

[From the California Cultivator, December 2, 1909.]

The picture shown on the next page gives something of an idea of a walnut tree growing on the experimental grounds of Mr. J. B. Wagner of Pasadena. This tree was planted seven years ago, being then about the size of a lead pencil—so small, in fact, that a workman passing it later with his cultivator, treated it like a weed and cultivated it out bodily. It was later replanted by Mr. Wagner, with the result that instead of growing one straight stem, three trunks came up, as shown in the picture. Not being given immediate attention, the three

branches attained such size that Mr. Wagner determined to let them all stand, and they have made the enormous growth shown in the photograph. The three stems each approximate about one foot in diameter, the larger having a diameter of fourteen inches. English walnut seedlings planted at



Walnut Tree 2 feet in diameter, 7 years old.

the same time and standing near this tree (one of which may be seen back of Mr. Wagner in the picture), having the same treatment, show trunks with a diameter of four to six inches and tops which make no comparison whatever. This tree is a hybrid of the English Soft Shell and the Eastern Black. The wood is not so dark as that of the

Eastern Black but more of the shade of mahogany, with grain much finer and closer than that of the Eastern.

As a lumber proposition we imagine walnut trees which will make such a rapid growth as that will crowd the eucalyptus trees very hard as a favorite. In illustration of this, a certain piece of furniture, an exceptionally fine library table, is priced in a Los Angeles furniture store at $150 in any oak finish, $200 in mahogany, and $250 in black walnut. If such is the case it proves the wonderful value of walnut timber.

Two Great Walnut Timber Trees.

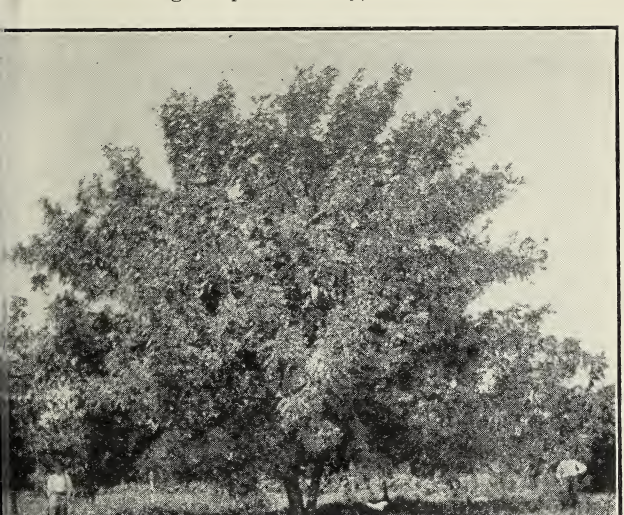
The Santa Rosa Republican, published at the home city of Luther Burbank, gives the following interesting account of another of the wonderful achievements of the horticultural wizard :

Luther Burbank produced two walnut trees by crossing old varieties of that wood, and the product bids fair to revolutionize the walnut industry and the furniture business. At the present time walnut is bringing from $250 to $500 per one thousand feet, and has become more expensive than mahogany. With the rapid growing trees produced by Mr. Burbank it would not take many years to produce sufficient growth in this timber to materially lessen the price of walnut for all purposes.

The Paradox, one of the new trees, is a cross between the common English walnut and the native California black walnut. The Royal is a cross between the common black Eastern and California walnuts. The Paradox is now being grown in front of Mr. Burbank's place on Santa Rosa avenue. In fourteen years they have attained a circumference of six feet at three feet from the ground. The seedlings will make even a more rapid growth, and those who have seen these trees and understand what they mean to future generations are delighted at the prospect.

The trees are exciting great interest at the present time on account of their marvelously rapid growth. Laying aside their value as walnut timber for making furniture and ornaments, Mr. Burbank declares that they will be more valuable for cordwood than any other tree which can be grown. Their growth is more rapid than any other tree in California, or any tree yet produced. Other trees can keep up with them in height, but nowhere can they compare with them in producing wood. They outrank the growth of other trees from twenty-five to fifty per cent in the wood product.

W. S. Harwood, a friend of Mr. Burbank, took a specimen of the wood to a furniture manufacturer and had it polished. The latter is said to have declared the specimen to be the finest specimen of black walnut he had ever seen. The wood takes an elegant polish easily, and is of beautiful



Wagner's Giant Walnut as a Shade Tree.

graining. It shows the annual growth of the tree to be about an inch, and the bark of the tree is quite thin.

P. C. Stohr, of Chicago, assistant traffic director of the Harriman lines, has been visiting Luther Burbank at Santa Rosa and marveling at some of his wonderful achievements in the realm of botany, horticulture and agriculture. He called on the horticultural wizard in company with James Horsburgh, Jr., of the Southern Pacific passenger department, and Professor E. J. Wickson of the agricultural department of the State University. He confesses that he saw some wonderful sights, but was most amazed at the hybrid walnut that promises not only to revolutionize the walnut industry, but the furniture business and the cord-

wood industry as well, on account of the wonderful hardness and close fiber of the wood, the rapid growth of the tree and its abundant yield of nuts.

"I almost had a suspicion, while viewing some of Mr. Burbank's achievements, that I was not in my right senses," remarked Mr. Stohr, on returning from Santa Rosa, "for after delving into the mysteries of that hybrid walnut I became absolutely walnutty."

Most Rapid Grower on Earth.

We do not wish to go on record as knocking the planting of eucalyptus or any other hardwood tree for future use. By all means, plant them, and where they will have a chance to make good. They will not be a disappointment. Your children will rise up and call you blessed, etc.; but if you want returns in the shortest possible time on this coast, plant Wagner's Giant Walnut, which is without question the most rapid growing hardwood tree on earth; also the highest priced lumber today is walnut. I have quoted in this short treatise clippings from some of our best periodicals published. These men tell the facts as they have seen and know them to exist. There is little I can say further. However, you will note Mr. J. A. Atkinson (an eminent authority) in his statistics on age and size of trees, gives eucalyptus ten to twelve years and black walnut fifty-six years to make a tree one foot in diameter under favorable conditions. Think it over. Wagner's Giant Walnut has attained two feet in six years. Think this over and act. Referring to the clipping herein, taken from the Santa Rosa Republican (published in Mr. Burbank's home town), one cannot but be impressed with the far-reaching possibilities of the black walnut tree as a money-maker. The article referred to does not fully cover the facts nor do credit to Mr. Burbank, the man who, above all others, stands out pre-eminently a giant in his line—in fact, he is in a class by himself as a hybridizer and an originator. His equal has not, and probably never will be, known. I admire him for what he is and for what he has done, and I am proud to know him as one of my personal friends. He was one of the first to congratulate me on my success in producing such a marvelous hardwood tree. Mr. Burbank's Giant Walnut attained the remarkable dimensions of about two feet and one inch in fourteen years, while my own has attained in six years over two feet and bids fair to make four feet diameter in fourteen years, or about twice the growth as the one just referred to. Compare this with the growth of

other trees, noting prices for lumber, and we think you will find it an interesting study. When fully seasoned the wood is harder than common black walnut, while the grain is finer and polishes more like higher-priced mahogany. Its uses are unlimited and not confined to furniture or wood. It is fine for railroad ties, etc., being long-lived when used for posts or tie purposes. Though hard as hickory when cured, it works into furniture easily and takes the finest of polish. This variety is like all other walnut trees in habit of growth. The first two years it grows slowly till it gets its root system well established, but afterwards proves otherwise. It should be planted on rich soil. If for shade, should be given plenty of room and permitted to branch low; if for timber, plant 10x10 feet so as to get a tall, straight stem. In five or six years remove every second tree.

The above cut shows the comparison of foliage of three different species of walnut.

The two on the sides are the common black walnut and the Santa Barbara soft shell; the center one is leaf of the Sieboldia, showing its immense foliage compared with the others—a leaf three feet long is not unusual with this sort, hence one of the grandest shade and foliage trees in existence.

Walnut Timber versus Eucalyptus.

It is a recognized fact that under proper conditions the trees of a Eucalyptus Globulus (Blue Gum) grove will attain a diameter of twelve inches in ten to twelve years, so that the absolute truth of all statements made regarding the rapidity of growth of these valuable trees as compared to the growth of other hard woods is brought out by the following extract from a valuable essay by John B. Atkinson of Louisville, Ky.:

"From the facts collected during these twenty years, I have made a table of the time it takes certain trees in Kentucky to grow to a diameter at the stump of twelve inches. This is not an infallible table, but is based upon actual tree growth, as observed in the forests; and has no reference to isolated growth, or unusual conditions.

"Pin oak will grow to twelve-inch diameter in forty years.

"The black locust will grow to twelve-inch diameter in forty years.

"Tulip will grow to twelve-inch diameter in fifty years.

"Black oak will grow to twelve-inch diameter in fifty years.

"Black walnut will grow to twelve-inch diameter in fifty-six years.

"Texas red oak will grow to twelve-inch diameter in fifty-eight years.

"Ash will grow to twelve-inch diameter in seventy-two years.

"Hickories will grow to twelve-inch diameter in ninety years.

"White oaks will grow to twelve-inch diameter in one hundred years."

From the above it will be noted that a twelve-inch eucalyptus log can be produced in California in one-fifth the time one of black oak, and one-fifth the time one of white oak can be produced in the Eastern forests, so that the constantly increasing interest in California's new industry is not strange. The strange fact is rather that the recognition of the value of the eucalyptus has been so long delayed.

Geographical Distribution.

This walnut is as hardy as any forest tree and adapted to cold climates. The first tree sent out from my grounds was planted by Mr. Fairchilds, head of the Department of Agriculture at Wash-

ington, D. C., where it stands the winter fine. It can and will be planted extensively in Oregon, Washington and other states where eucalyptus cannot be grown. In fact, no tree has so wide a field that promises so well. Don't forget that at six years of age this walnut tree is as large as the eucalyptus at twelve years, Eastern black walnut at fifty-six years and common California walnut at twenty years. Say, you timber men, don't you know it will pay to plant our native walnut for lumber? You can yet two-foot logs in twenty years. Wake up!

The foliage and habit of Wagner's Giant, as well as odor of the same, is similar to Eastern black. The bark is smooth, grain compact, and of finest quality. It grafts readily on common walnut and grows afterward at rapid rate. The top demands lots of sap and the root must expand to supply these demands. It does equally as well on common root as on its own root for lumber. The nuts are of fine flavor and are similar to English hard shell in appearance, but, being a hard shell, will never be of much commercial value. For shade, this tree cannot be surpassed. It gives dense shade in summer and is free of foliage during wet, rainy seasons, hence double valuable where one wishes shade in summer and sun in winter.

No lumber tree ever has and probably never will exist that has had the lumber value of the black walnut. It is now so scarce it is used as veneering. A very little is to be had of native black in California, while the history of its disappearance in the East is a parallel with the disappearance and extermination of the buffalo on our great plains a few years ago, and both took place about the same time. The one is gone forever; the other can and must be replaced or posterity will surely be the loser. The old-time buffalo robe is a thing of the past, and I might say the same of the walnut since old fence rails, posts and furniture have been bought up and used as veneering; but now we have a finer wood and the most rapid growing hardwood tree on earth to replace these conditions. Nothing will pay so well as a forest of this grand walnut. There is no tree hybridizes as easily as walnuts of the same species. Very rarely we find a cross of any on the black. To the best of my knowledge this is only the third case where artificial pollenization has been accomplished and brought to the attention of botanists. One of theese is credited to The Wizard of Horticulture, Mr. Burbank of Santa Rosa, California; one to a son of sunny Italy, and, by chance, the most valuable of all, it has been my good fortune to be the originator of.

For fear some may doubt the truth of this statement, let me ask if anyone ever knew of a cross by mixing or natural in-breeding of the black walnut and the butternut? These have grown side by side since time began, in wild state, and in

no known instance has there ever been a cross, though these two are as nearly related as the English soft shell and black walnut.

To fully grasp the idea of the marvelous growth this tree has made I wish to say the original tree was planted in a field of fifty Santa Barbara soft shell walnuts, all at the same time, and all had the same attention. Six years afterward, I fully believe that if one were to fell the trees and weigh the wood growth, they would find the weight of this giant black walnut greater than the combined weight of the fifty other trees. In other words, it has grown fifty times as rapidly.

Don't fail to include a tree of this in your order or collection of shade trees. If you have land suitable for forest or lumber, plant either trees or nuts. They come true to seed.

Price of trees: $1.00 each; $7.50 for ten; $65.00 for 100.

Nuts for seed: 50c each; $3.00 for ten; $25.00 for 100.

Grafting Wood: 50c per foot; $3.00 for ten feet; $20.00 for 100 feet.

Nuts and trees for large plantings supplied at reasonable prices. Investigation earnestly requested.

While we make the Giant walnut a specialty, we can supply the following sorts:

Santa Barbara Soft Shell. (Pedigreed stock.) Seeding from original trees at Santa Barbara.

Seeding from original trees at Santa Barbara. Trees of this strain begin to bear after three years, with no variation to notice in quality of nut. Make better tree than any other sort obtainable; decidedly preferable to grafted trees, as it has no tendency to get diseased at ground where grafted.

Ninety per cent of nuts grown commercial is Santa Barbara strain.

Price, each, 35c.; 10, $3.00; 100, $25.00.

We also have Santa Barbara grafted on Black. Each, 75c; 10, $6.00; 100, $50.00.

Eastern Black: Each, 50c; ten, $3.50; one hundred, $25.00.

California Black: Each, 35c; ten for $2.50; 100 for $20.00.

Japanese Sieboldia, the largest foliage nut tree in existence; leaves 2 to 3 feet long; see cut on page 9; nut flavor like butternut; very prolific. Fine for street or shade; bears young. Each, 75c; ten for $5.00.

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On Southwest corner Villa street and Sierra Bonita avenue. Take Lamanda Park car, get off at Sierra Bonita avenue, go north to Villa Street; or take North Loop car, get off at Sierra Bonita, go north to Villa.

(Do not get off the car when it crosses Villa street as you will have to walk a mile, but follow directions as given; also, it would be much better to phone before taking car from Pasadena; then I will be sure to be there. Otherwise people coming from long distances are apt to miss seeing me.)

Yours for better Products
and more of them,
J. B. WAGNER,

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